

CLAIMS

[1] A privacy protection method for preventing an invasion of privacy performed by reading an proper identifier and on the basis of said proper identifier,
5 including:

an identifier guard step of bringing an proper identifier of a radio identifier transmitter affixed to an article purchased and thereby possessed by a personal user
10 into an identifier guard state not readable by a stranger according to the intention of said personal user;

an identifier generation step of generating an identifier for disturbing a privacy invader with a privacy protection identifier transmitter possessed by said
15 personal user;

a transmission step of transmitting said identifier generated through said identifier generation step from said privacy protection identifier transmitter when receiving an identifier transmission request; and

20 a reading step of rendering the identifier of said radio identifier transmitter in the identifier guard state readable according to the intension of the personal user, wherein

said identifier generation step includes a variable
25 type identifier generation step capable of generating an

identifier different from a precedently transmitted
identifier.

[2] A privacy protection method for preventing an
5 invasion of privacy performed by reading an proper
identifier of a radio identifier transmitter affixed to an
article purchased and thereby possessed by a personal user
and on the basis of said proper identifier, including:

an identifier generation step of generating an
10 identifier for disturbing a privacy invader with a privacy
protection identifier transmitter possessed by said
personal user; and

a transmission step of transmitting said identifier
generated through said identifier generation step from
15 said privacy protection identifier transmitter when
receiving an identifier transmission request, wherein

said identifier generation step includes an adjusted
identifier generation step for generating an adjusted
identifier so adjusted that an identifier transmitted from
20 said personal user possessing said privacy protection
identifier transmitter is identical to an identifier
transmitted from a stranger in response to the identifier
transmission request,

for causing such a different person identical
25 identifier transmission phenomenon that identical

identifiers are transmitted even in case of transmission from different persons.

[3] A privacy protection method for preventing an invasion of privacy performed by reading an proper identifier and on the basis of said proper identifier, including:

a provision step of providing privacy protection identifier transmitters to a plurality of personal users, wherein

said privacy protection identifier transmitters include:

identifier generation means generating an identifier for disturbing a privacy invader; and

transmission means transmitting said identifier generated by said identifier generation means when receiving an identifier transmission request,

said identifier generation means includes variable type identifier generation means capable of generating an identifier different from a precedently transmitted identifier,

said variable type identifier generation means is capable of generating a common identifier according with an identifier transmitted from said privacy protection identifier transmitter possessed by a person different

from persons possessing said privacy protection identifier transmitters generating and transmitting identifiers with said variable type identifier generation means,

said plurality of privacy protection identifier transmitters are classified into a plurality of groups formed by privacy protection identifier transmitters transmitting said common identifier in a higher frequency as compared with an identifier of a stranger and having said common identifier varying with groups, and

said provision step specifies an area every said group and provides said privacy protection identifier transmitters belonging to said group to the personal users.

[4] A privacy protection method for preventing an invasion of privacy performed by reading an proper identifier and on the basis of said proper identifier, including:

a provision step of providing a privacy protection identifier transmitter to a plurality of personal users, wherein

said privacy protection identifier transmitter includes:

identifier generation means generating an identifier for disturbing a privacy invader, and

transmission means transmitting said identifier

generated by said identifier generation means when
receiving an identifier transmission request,

said identifier generation means includes variable
type identifier generation means capable of generating an
5 identifier different from a precedently transmitted
identifier, and

said variable type identifier generation means is
capable of generating a common identifier according with
an identifier transmitted from a privacy protection
10 identifier transmitter possessed by a person different
from a person possessing the privacy protection identifier
transmitter generating the identifier with said variable
type identifier generation means,

for simultaneously transmitting a previously set
15 prescribed number of identifiers from a privacy protection
transmitter provided to a certain personal user through
said provision step, and

simultaneously transmitting a plurality of
identifiers of a number larger than said prescribed number
20 from a privacy protection identifier transmitter provided
to another personal user different from said certain
personal user through said provision step and generating
another identifier, excluding said prescribed number of
identifiers, included in said plurality of identifiers as
25 said common identifier.

[5] A device for transmitting an identifier for privacy protection for preventing an invasion of privacy performed by reading an proper identifier and on the basis of said proper identifier, including:

variable type identifier generation means, which is means disturbing a privacy invader and generating an identifier for privacy protection, capable of generating an identifier different from a precedently transmitted identifier; and

transmission means transmitting an identifier generated by said variable type identifier generation means when receiving an identifier transmission request.

[6] The device for transmitting an identifier for privacy protection according to claim 5, wherein

said variable type identifier generation means generates said identifier in the range of identifiers transmitted by the respective ones of radio identifier transmitters affixed to the respective ones of already sold articles.

[7] The device for transmitting an identifier for privacy protection according to claim 5 or 6, wherein

said transmission means transmits the same identifier

as a precedently transmitted identifier when receiving an identifier transmission request again within a prescribed time from precedent identifier transmission.

5 [8] The device for transmitting an identifier for privacy protection according to any of claims 5 to 7, wherein

 said variable type identifier generation means is capable of generating an identifier so adjusted that an
10 identifier transmitted from a person possessing the privacy protection identifier transmitter generating the identifier with said variable type identifier generation means accords with an identifier transmitted from a
 stranger, who is a person different from said person,
15 possessing a privacy protection identifier transmitter.

 [9] The device for transmitting an identifier for privacy protection according to claim 8, further including communication means communicating with a privacy
20 protection identifier transmitter of a stranger, wherein

 said variable type identifier generation means includes identifier storage means storing an identifier,

 said communication means includes:

 transmission means communicating with said privacy
25 protection identifier transmitter of the stranger and

transmitting said identifier stored in said identifier storage means to said privacy protection identifier transmitter of the stranger,

receiving means receiving an identifier transmitted from said privacy protection identifier transmitter of the stranger, and

shared identifier storage means storing the identifier received by said receiving means in said identifier storage means and sharing the same identifier with said stranger, and

said variable type identifier generation means generates said identifier adjusted to accord with the identifier transmitted from the stranger by reading the shared identifier stored in said identifier storage means through said shared identifier storage means when receiving an identifier transmission request.

[10] The device for transmitting an identifier for privacy protection according to claim 9, wherein

said communication means, whose communicable communication limit range for transmitting/receiving and exchanging mutual identifiers is set within 20 meters, communicates with the privacy protection identifier transmitter of the stranger entering the area of said communicable communication limit range and exchanges

mutual identifiers with each other.

[11] The device for transmitting an identifier for privacy protection according to claim 9 or 10, wherein

5 said communication means has inhibition means inhibiting performance of exchange of said identifiers with the privacy protection identifier transmitter of a stranger with whom communication has been already made for transmitting/receiving and exchanging said identifiers
10 again within a prescribed period.

[12] The device for transmitting an identifier for privacy protection according to any of claims 9 to 11, wherein

15 said communication means has a telephone function and exchanges mutual identifiers with the privacy protection identifier transmitter of a stranger making communication by telephone, and

20 said variable type identifier generation means generates an identifier adjusted to accord with an identifier transmitted from said stranger by reading an exchanged identifier stored in said identifier storage means when receiving an identifier transmission request.

25 [13] The device for transmitting an identifier for

privacy protection according to any of claims 9 to 12,
wherein

said communication means has an electronic mail
function, transmits an identifier stored in said
5 identifier storage means to the privacy protection
identifier transmitter of the stranger along with
transmission of an electronic mail, and receives an
identifier transmitted from the privacy protection
identifier transmitter of the stranger along with
10 receiving of an electronic mail and stores the same in
said identifier storage means, and

said variable type identifier generation means
generates an identifier adjusted to accord with the
identifier transmitted from said stranger by reading the
15 identifier, transmitted from the privacy protection
identifier transmitter of the stranger, stored in said
identifier storage means when receiving an identifier
transmission request.

20 [14] The device for transmitting an identifier for
privacy protection according to any of claims 5 to 13,
wherein

said transmission means is capable of simultaneously
transmitting a plurality of identifiers of a number larger
25 than a prescribed number of identifiers simultaneously

transmitted from the privacy protection identifier
transmitter of the stranger, and

said variable type identifier generation means
generates an identifier, excluding said prescribed number
of identifiers, included in said plurality of identifiers
as said common identifier.

[15] The device for transmitting an identifier for
privacy protection according to any of claims 5 to 14,
further including:

identifier guard means bringing an proper identifier
of a radio identifier transmitter affixed to an article
purchased and thereby possessed by a personal user into an
identifier guard state not readable by a stranger
according to the intention of said personal user, and

read means rendering the identifier of said radio
identifier transmitter in the identifier guard state
readable according to the intention of the personal user.

[16] The device for transmitting an identifier for
privacy protection according to claim 15, wherein

said identifier guard means transmits proper
identification information for person in question
authentication, lets said radio identifier transmitter
authenticate the same and switches to an identifier

transmission stop state transmitting no identifier unless
the person in question is confirmable, and

said read means brings an identifier into a
transmittable state after transmitting said proper
5 identification information and making said radio
identifier transmitter perform the person in question
authentication.

[17] A privacy protection method for preventing an
10 invasion of privacy performed by reading an proper
identifier and on the basis of said proper identifier,
including:

a registration processing step of performing
processing of registering information allowing
15 specification of correspondence between a pseudonym
created for acting as an anonymous user by giving the
pseudonym in order to protect the privacy of a personal
user and said personal user in a prescribed institution
having the duty of confidentiality;

20 an electronic certificate issuing step of issuing an
electronic certificate for said anonymous user;

an address setting step for setting the address of
said anonymous user to an address different from that of
the personal user corresponding to said pseudonym;

25 a user registration step of registering as said

anonymous user by registering information of said
pseudonym when performing user registration to a
prescribed trader;

a transmission step of transmitting an identifier
from a privacy protection identifier transmitter possessed
by said personal user when receiving an identifier
transmission request; and

pseudonym identifier storage means storing a
pseudonym identifier corresponding to said trader
registering said pseudonym through said user registration
step,

for reading said pseudonym identifier corresponding
to said trader from said pseudonym identifier storage
means and transmitting the same in said transmission step
when transmitting said identifier to said trader
registering said pseudonym.

[18] The privacy protection method according to claim
17, reading said pseudonym identifier from said pseudonym
identifier storage means and transmitting the same through
said transmission step when receiving an operation of the
personal user for transmitting said pseudonym identifier
also when it is not the case of transmitting said
identifier to said trader registering said pseudonym.

[19] A privacy protection system for preventing an invasion of privacy performed by reading an proper identifier and on the basis of said proper identifier, including:

5 registration processing means performing processing of registering information allowing specification of correspondence between a pseudonym created for acting as an anonymous user by giving the pseudonym in order to protect the privacy of a personal user and said personal
10 user in a prescribed institution having the duty of confidentiality;

user registration means for registering as said anonymous user by registering information of said pseudonym when performing user registration to a
15 prescribed trader;

transmission means transmitting an identifier from a privacy protection identifier transmitter possessed by said personal user when receiving an identifier transmission request; and

20 pseudonym identifier storage means storing a pseudonym identifier corresponding to said trader registering said pseudonym through said user registration means, wherein

said transmission means reads said pseudonym
25 identifier corresponding to said trader from said

pseudonym identifier storage means and transmits the same when transmitting said identifier to said trader registering said pseudonym.

5 [20] A device for transmitting an identifier for privacy protection for preventing an invasion of privacy performed by reading an proper identifier and on the basis of said proper identifier, including:

10 pseudonym identifier storage means storing, when a personal user acts as an anonymous user by giving a pseudonym to a prescribed trader, a pseudonym identifier corresponding to said trader; and

15 transmission means, which is means transmitting an identifier when receiving an identifier transmission request, reading said pseudonym identifier corresponding to said trader from said pseudonym identifier storage means and transmitting the same when transmitting said identifier to said trader.

20 [21] The device for transmitting an identifier for privacy protection according to claim 20, wherein

25 said transmission means reads said pseudonym identifier from said pseudonym identifier storage means and transmits the same when receiving an operation of the personal user for transmitting said pseudonym identifier

also when it is not the case where the personal user transmits said identifier to said trader to which the pseudonym is given.

5 [22] The device for transmitting an identifier for privacy protection according to claim 20 or 21, wherein
said prescribed trader is a store selling articles,
said pseudonym identifier storage means stores a
pseudonym identifier corresponding to said store
10 registered as an anonymous user in user registration following issuance of a point card in said store, and
said transmission means reads said pseudonym
identifier from said pseudonym identifier storage means
and transmits the same when receiving an identifier
15 transmission request for reading, at a time of performing automatic settlement for paying for the price of an article inferred through an proper identifier transmitted from a radio identifier transmitter affixed to said
article purchased in said store, said proper identifier of
20 said radio identifier transmitter.

[23] The device for transmitting an identifier for privacy protection according to any of claims 20 to 22, wherein

25 said pseudonym identifier storage means stores

different pseudonym identifiers in correspondence to a plurality of said traders respectively, and

said transmission means selects, in response to the one to which the pseudonym is given by the personal user among said plurality of traders, said pseudonym identifier corresponding to said trader to which the pseudonym is given from said pseudonym identifier storage means and transmits the same.

[24] A program for preventing an invasion of privacy performed by reading an proper identifier and on the basis of said proper identifier,

for making a computer provided on a privacy protection identifier transmitter function as:

variable type identifier generation means, which is means generating a privacy protection identifier for disturbing a privacy invader, capable of generating an identifier different from a precedently transmitted identifier; and

transmission means transmitting the identifier generated by said variable type identifier generation means when receiving an identifier transmission request.

[25] The program according to claim 24, wherein

said variable type identifier generation means

generates said identifier in the range of identifiers
transmitted from the respective ones of radio identifier
transmitters affixed to already sold articles respectively.

5 [26] The program according to claim 24 or 25, wherein
 said transmission means transmits the same identifier
as a precedently transmitted identifier when receiving an
identifier transmission request again within a prescribed
time from precedent identifier transmission.

10

 [27] The program according to any of claims 24 to 26,
wherein

 said variable type identifier generation means is
capable of generating an identifier so adjusted that an
15 identifier transmitted from a person possessing the
privacy protection identifier transmitter generating an
identifier with said variable type identifier generation
means accords with an identifier transmitted from a
stranger, who is a person different from said person,
20 possessing a privacy protection identifier transmitter.

 [28] The program according to claim 27, wherein
 said variable type identifier generation means
includes identifier storage means storing an identifier,
25 for communicating with said privacy protection

identifier transmitter of the stranger and making said
privacy protection identifier transmitter of the stranger
transmit said identifier stored in said identifier storage
means while receiving the identifier transmitted from said
5 privacy protection identifier transmitter of the stranger
and making said identifier storage means store the same
for sharing the same identifier as said stranger, and

said variable type identifier generation means
generates an identifier adjusted to accord with said
10 identifier transmitted from the stranger by reading said
shared identifier stored in said identifier storage means
when receiving an identifier transmission request.

[29] The program according to claim 27 or 28, making
15 the computer function as inhibition means inhibiting re-
performance of exchange of said identifier with a privacy
protection identifier transmitter of a stranger with whom
communication has been already made for
transmitting/receiving and exchanging said identifier
20 within a prescribed period.

[30] The program according to any of claims 27 to 29,
exchanging mutual identifiers with a privacy protection
identifier transmitter of a stranger making communication
25 by telephone, wherein

said variable type identifier generation means
generates an identifier adjusted to accord with an
identifier transmitted from said stranger by reading an
exchanged identifier stored in said identifier storage
5 means when receiving an identifier transmission request.

[31] The program according to any of claims 27 to 30,
transmitting the identifier stored in said identifier
storage means to a privacy protection identifier
10 transmitter of a stranger along with transmission of an
electronic mail while receiving an identifier transmitted
from the privacy protection identifier transmitter of the
stranger along with receiving of an electronic mail and
making said identifier storage means store the same,
15 wherein

said variable type identifier generation means
generates an identifier adjusted to accord with said
identifier transmitted from the stranger by reading the
identifier transmitted from the privacy protection
20 identifier of the stranger stored in said identifier
storage means when receiving an identifier transmission
request.

[32] The program according to any of claims 24 to 31,
25 wherein

said transmission means is capable of simultaneously transmitting a plurality of identifiers of a number larger than a prescribed number of identifiers simultaneously transmitted from the privacy protection identifier transmitter of the stranger, and

said variable type identifier generation means generates another identifier, excluding said prescribed number of identifiers, included in said plurality of identifiers as said identifier adjusted to accord with said identifier transmitted from the stranger.

[33] The program according to any of claims 24 to 32, further including a program making the computer function as:

identifier guard means bringing an proper identifier of a radio identifier transmitter affixed to an article purchased and thereby possessed by a personal user into an identifier guard state not readable by a stranger according to the intension of said personal user; and

read means rendering the identifier of said radio identifier transmitter in the identifier guard state readable according to the intention of the personal user.

[34] The program according to claim 33, wherein said identifier guard means transmits proper

identification information for person in question
authentication, lets said radio identifier transmitter
authenticate the same and switches to an identifier
transmission stop state transmitting no identifier unless
5 the person in question is confirmable, and

said read means brings an identifier into a
transmittable state after transmitting said proper
identification information and making said radio
identifier transmitter perform the person in question
10 authentication.

[35] A monitoring system monitoring leakage of
private information, including:

partner specifying mail address generation processing
15 means, which is means generating an proper mail address to
be used for a specific mail partner for exchanging
electronic mails, performing processing for generating a
partner specifying mail address allowing inference of
information specifying said mail partner; and

20 monitor means inferring, when the mail address of a
sendee of an electronic mail transmitted from a sender is
said partner specifying mail address generated by said
partner specifying mail address generation processing
means, information specifying said mail partner
25 corresponding to said partner specifying mail address and

monitoring whether or not said inferred information specifying the mail partner and information of the sender of said electronic mail accord with each other.

5 [36] The monitoring system according to claim 35, wherein

 said partner specifying mail address generation processing means performs processing for generating said partner specifying mail address by encrypting data
10 including mail partner specifying information for specifying said mail partner, and

 said monitor means monitors whether or not said mail partner specifying information and the information of the sender of said electronic mail accord with each other by
15 decoding said partner specifying mail address and extracting said mail partner specifying information.

 [37] The monitoring system according to claim 36, wherein

20 said partner specifying mail address generation processing means performs processing of generating said partner specifying mail address by encrypting data specifying the mail address of the person in question intending to exchange electronic mails with said mail
25 partner and data specifying the mail address of said mail

partner, and

said monitor means performs processing of specifying the mail address of said mail partner by decoding said partner specifying mail address and monitoring whether or not said mail address and the mail address of the sender of said electronic mail accord with each other for storing said electronic mail in a mail box corresponding to said mail address of the person in question specified by decoding said partner specifying mail address when the mail addresses accord with each other as a result of monitoring.

[38] A monitoring system for monitoring and preventing a spam, including:

partner specifying mail address generation processing means, which is means generating an proper mail address to be used for a specific mail partner for exchanging electronic mails, performing processing for generating a partner specifying mail address allowing inference of information specifying said mail partner; and

monitor means inferring, when the mail address of a sendee of an electronic mail transmitted from a sender is said partner specifying mail address generated by said partner specifying mail address generation processing means, information specifying said mail partner

corresponding to said partner specifying mail address and monitoring whether or not said inferred information specifying the mail partner and information of the sender of said electronic mail accord with each other.

5

[39] The monitoring system according to claim 38, wherein

said partner specifying mail address generation processing means performs processing for generating said partner specifying mail address by encrypting data including mail partner specifying information for specifying said mail partner, and

said monitor means monitors whether or not said mail partner specifying information and the information of the sender of said electronic mail accord with each other by decoding said partner specifying mail address and extracting said mail partner specifying information.

[40] The monitoring system according to claim 39, wherein

said partner specifying mail address generation processing means performs processing of generating said partner specifying mail address by encrypting data specifying the mail address of the person in question intending to exchange electronic mails with said mail

partner and data specifying the mail address of said mail partner, and

said monitor means performs processing of specifying the mail address of said mail partner by decoding said partner specifying mail address and monitoring whether or not said mail address and the mail address of the sender of said electronic mail accord with each other for storing said electronic mail in a mail box corresponding to said mail address of the person in question specified by decoding said partner specifying mail address when the mail addresses accord with each other as a result of monitoring.

[41] The monitoring system according to any of claims 38 to 40, further including prevention means preventing transmission of said electronic mail when said inferred mail partner specifying information and the information of the sender of said electronic mail do not accord with each other as a result of monitoring by said monitor means.

[42] A privacy protection method for monitoring an invasion of privacy performed by reading an proper identifier related to a personal user and on the basis of said proper identifier, including:

an identifier guard step of bringing an proper

identifier of a radio identifier transmitter affixed to an article purchased and thereby possessed by the personal user into an identifier guard state not readable by a stranger according to the intension of said personal user;

5 a mail address notification processing step of performing, when said personal user notifies his/her mail address to a prescribed trader as a customer or a user, processing of generating a notification mail address, which is a new notification mail address for said trader, 10 allowing inference of information specifying said trader and notifying the same to said trader;

 a notified trader identifier generation step of generating a notified trader identifier corresponding to the notified trader to which said notification mail 15 address is notified through said mail address notification processing step;

 a transmission step of transmitting said notified trader identifier, identical every time, generated through said notified trader identifier generation step when 20 transmitting an identifier to said notified trader in response to an identifier transmission request while transmitting said notified trader identifier when receiving an operation of the personal user for transmitting said notified trader identifier also in a 25 case of transmitting an identifier to a person other than

said notified trader;

an electronic mail transmission step for transmitting an electronic mail transmitted from a sender to a sendee according to a specified mail address; and

5 a monitoring step of inferring information specifying said notified trader corresponding to said notification mail address when the mail address of the sendee of the electronic mail transmitted through said electronic mail transmission step is said notification mail address

10 notified through said mail address notification processing step for monitoring whether or not said inferred information specifying the notified trader and the information of the sender of said electronic mail accord with each other.

15

[43] A privacy protection system for monitoring an invasion of privacy performed by reading an proper identifier related to a personal user and on the basis of said proper identifier, including:

20 mail address notification processing means performing, when said personal user notifies his/her mail address to a prescribed trader as a customer or a user, processing of generating a notification mail address, which is a new notification mail address for said trader, allowing
25 inference of information specifying said trader and

notifying the same to said trader;

notified trader identifier generation means
generating a notified trader identifier corresponding to
the notified trader to which said notification mail
5 address is notified through said mail address notification
processing means;

transmission means transmitting said notified trader
identifier, identical every time, generated by said
notified trader identifier generation means when
10 transmitting an identifier to said notified trader in
response to an identifier transmission request while
transmitting said notified trader identifier when
receiving an operation of the personal user for
transmitting said notified trader identifier also in a
15 case of transmitting an identifier to a person other than
said notified trader; and

monitor means inferring information specifying said
notified trader corresponding to said notification mail
address when the mail address of a sendee of an electronic
20 mail transmitted from a sender is said notification mail
address notified through said mail address notification
processing means for monitoring whether or not said
inferred information specifying the notified trader and
the information of the sender of said electronic mail
25 accord with each other.

[44] The privacy protection system according to claim 43, wherein

said mail address notification processing means
5 includes encryption generation means generating said notification mail address by encrypting data including notified trader specifying information for specifying a notified trader to which the mail address is notified, and

said monitor means includes:

10 decoding means decoding the notification mail address of the electronic mail transmitted from the sender, and

determination means determining whether or not said notified trader specifying information included in data decoded by said decoding means and information of the
15 sender of said electronic mail accord with each other.

[45] The privacy protection system according to claim 43 or 44, wherein

said notified trader is a store selling articles,

20 said mail address notification processing means performs processing of generating a notification mail address corresponding to said store in user registration following issuance of a point card in said store and notifying the same, and

25 said transmission means transmits said notified

trader identifier corresponding to said store at a time of performing automatic settlement according to a price of an article inferred through an proper identifier transmitted from a radio identifier transmitter affixed to said
5 article purchased in said store when receiving an identifier transmission request for reading said proper identifier of said radio identifier transmitter.

[46] A device for transmitting an identifier for
10 privacy protection for preventing an invasion of privacy performed by reading an proper identifier related to a personal user and on the basis of said proper identifier, including:

notified trader identifier generation means
15 generating a notified trader identifier corresponding to a notified trader, for which prescribed trader said personal user generates a new notification mail address as a customer or a user for notifying the same to said trader; and

20 transmission means transmitting said notified trader identifier, identical every time, generated by said notified trader identifier generation means when transmitting an identifier to said notified trader in response to an identifier transmission request while
25 transmitting said notified trader identifier when

receiving an operation of the personal user for
transmitting said notified trader identifier also in a
case of transmitting an identifier to a person other than
said notified trader.

5